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EXAMINER				
DENG, ANNA CHEN				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/500,919

Applicant(s)

RAJU ET AL.

Examiner

ANNA DENG

Art Unit

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Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 July 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-893)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date 7/8/2004.

DETAILED ACTION

1. This action is in response to application filed on 7/8/2004.

Claims 1-9 are pending.

Drawings

2. The drawings are objected to because: contain hand written; reference number neither in the drawing nor in the description, it is not clear how the items/parts in the drawing related to the description. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The abstract of the disclosure is objected to because the number of words over 150. Correction is required. See MPEP § 608.01(b).

Claim Objections

4. Claim 2 is objected to because of the following informalities: multiply columns (lines 4-5), and missing a period at the end of claim. Appropriate correction is required.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 1-9 are rejected under 35 U.S.C. 101 because the claimed subject matter do not fall into any process, machine manufacture, or composition, thus, they are not patentable.
7. Claims 1-9 each set forth an unique versatile executor engine that are reasonably interpreted as software *per se*. there are no hardware components recited in the claim that would enable the functionality of the engine to be realized. Accordingly, the claimed invention is directed to non-statutory subject matter. See MPEP § 2106.01.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

9. Claims 1 and 4 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In claims 1 (line 7) and claim 4 (line 4) recite subject matter "new technologies" that is not described in the specification or drawing in such a way as to reasonably convey to one skilled in the art at the time the application was filed, had possession of the claimed invention.

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. The term "unique" in claim 1-9, the term "new technologies" in claims 1 and 4, the term "easy scalability" in claim 4, the term "traditional methodology" in claim 7, and the term "ease" in claim 9 that are relative terms which render the claims indefinite. The terms "unique", "new technologies", "traditional methodology", "easy scalability", or "ease" are not defined by the claims, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.
12. Claims 2 and 7-9 provide for the use of versatile executor engine, but, since the claims does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.
13. Claims 4-6 contains the trademark/trade name "PROFIT 5PM". Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe software architecture and, accordingly, the identification/description is indefinite.
14. Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 4 contains limitation "open-ended" that is indefinite. The scope of this limitation is uncertain.
15. Claim 4 recites the limitation "the technology extensions" in line 6. There is insufficient antecedent basis for this limitation in the claim.
16. Claims 5-6 recites the limitation "wherein PROFIT 5RM" in lines 2-3. There are insufficient antecedent basis for this limitation in the claims.

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17. Claim 6 recites the limitation "these definitions" in line 5. There is insufficient antecedent basis for this limitation in the claim.
18. Claim 7 recites the limitation "the traditional methodology" in line 4. There is insufficient antecedent basis for this limitation in the claim.
19. Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite in that it fails to point out what is included or excluded by the claim language. Claim 8 contains limitation "for all domains" that does not point out what is include or excluded by the claim language. This claim is an omnibus type claim.

Claim Rejections - 35 USC § 102

20. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

21. Claims 1, 3-7, and 9 are rejected under 35 U.S.C. as being anticipated by Turner et al. US 6,230,309 B1 (hereinafter Turner), Applicant's submitted IDS.

Per Claim 1:

Turner discloses:

- **An unique versatile executor engine which can interpret and execute transaction structures and information views to build information system comprises essentially a software tool being of two parts, a builder and an executor engine, the builder being to capture the business process in terms of transaction structure with process maps and information views, the executor engine being to read and execute the definitions,**

the said executor engine having a unique architecture in such a way that scaling of new technologies can be made with ease without affecting the existing information system (Turner, col. 4, lines 41-51, "a design tool for assembling component objects to form an object-based computer system application, the design tool comprising: a declarative user input interface mechanism configured to be operable to provide an input structure for inputting user declaration specifying operative interactions between component object; and a design engine configured to be operable automatically to generate in response to input user declarations, an application design definition modeling an application infrastructure for managing component object interactions"; also, col. 5, lines 26-37, "the application engine is configured to be operable at runtime automatically to create application view instances from respective application view definitions for managing runtime component object interactions for the application. The runtime tool is thereby able to interpret the application design definition in order to generate application view instances ...", emphases added).

Per Claim 3:

Turner discloses:

- **An unique versatile executor engine which can interpret and execute transaction structures and information views to build information system wherein the said executor engine has a unique technology, which enables an information system to be built by representing the system requirements as transaction structures and information views and storing them as data, instead of writing software programs to achieve the same, thus making information system building simple and quick** (Turner, col. 4, lines 41-62, "there is provided a design tool for assembling component objects to form an object-based computer system application...The use of a declarative user input interface mechanism and a designing engine enables a user readily to describe an intended application by means of declarative statements and automatically to generate an application design definition from those declarations, which application design definition then models the

application infrastructure for managing component object interactions. This removes the need for a designer to write specific program code to link components. The use of declarative statements facilitates the automation of the automation of the application assembly process"; col. 6, lines 44-64, "provides a design tool program on a data storage medium the design tool program being for assembling component objects to form an object – based computer system application...", emphases added)

Per Claim 4:

Turner discloses:

- **An unique versatile executor engine which can interpret and execute transaction structures and information views to build information system wherein the said executor engine has open-ended architecture of PROFIT 5RM which facilitates easy scalability to new technologies without affecting the already made information structure and further, allows change in the information structure immaterial of the technology extensions made** (Turner, col. 5, lines 26-37, "the application engine is configured to be operable at runtime automatically to create application view instances from respective application view definitions form managing runtime component object interactions for the application. The runtime tool is thereby able to interpret the application design definition in order to generate application view instances for managing runtime component object interactions"; col. 17, lines 8-13, "Expand—The expand event supplies a mechanism to deal with an increase in the number of rows in the Application View by one. (An extension of this approach would expand the number of rows by a specific number. The expand event is run after Application View Field Match input values have come..."; also, col. 25, lines 57-67 through col. 26, lines 1-7, "The Metadata for the Arranger product was extended for an embodiment of the invention to hold all objects ...This architecture allows changes to be made to the structure and functionality offered by the IA Interface during development without disturbing the Arranger product", emphases added).

Per Claim 5:

This is another unique versatile executor engine version of the claimed unique versatile executor engine discussed above (Claim 1, 3-4) wherein all claim limitations also have been addressed and/or covered in cited areas as set forth above. Thus accordingly these claims are also anticipated by Turner.

Per Claim 6:

Turner discloses:

- **An unique versatile executor engine which can interpret and execute transaction structures and information views to build information system wherein PROFIT 5RM has the technology in which the information system is analyzed and split into transaction structures and information views and these are then defined using the PROFIT 5RM builder, which stores these definitions as data and this being interpreted and executed by the unique executor engine to provide the necessary information** (Turner, col. 6, lines 11-23, "providing an input structure for inputting user declarations specifying operative interactions between component objects...models an application infrastructure for managing component object interactions automatically to create application view instances from respective application view definitions..."; also, col. 17, lines 53-57, "The area describing Runtime Data Management models the objects used to hold actual Application Views 80 during execution of the system. In the implementation, this information is stored either in memory, for the life of the application, or in a database to provide persistence").

Per Claim 7:

Turner discloses:

- **An unique versatile executor engine which can interpret and execute transaction structures and information views to build information system wherein application of**

software reduces software development cycle time in a ratio of 1:50 as compared to the traditional methodology (Turner, col. 2, lines 29-32, "The Arranger product ...provided a significant step towards a reduction in application development cycle times by providing an infrastructure for supplying components ready for assembly"; col. 4, lines 35-38, "an aim of the invention is to provide a mechanism which will enable application development times to be further reduced. In particular, an aim of the invention is to facilitate the generation of applications from component objects"; also, col. 5, lines 26-37, "the application engine is configured to be operable at runtime automatically to create application view instances from respective application view definitions form managing runtime component object interactions for the application. The runtime tool is thereby able to interpret the application design definition in order to generate application view instances...").

Per Claim 9:

Turner discloses:

- **An unique versatile executor engine which can interpret and execute transaction structures and information views to build information system wherein the system possesses a technology** (Turner, col. 4, lines 41-51, "a design tool for assembling component objects to form an object-based computer system application, the design tool comprising: a declarative user input interface mechanism configure to be operable to provide an input structure for inputting user declaration specifying operative interactions between component object; and a design engine configured to be operable automatically to generate in response to input user declarations, an application design definition modeling an application infrastructure for managing component object interactions"; also, col. 5, lines 26-37, "the application engine is configured to be operable at runtime automatically to create application view instances from respective application view definitions form managing runtime component object interactions for the application. The runtime tool is thereby able to interpret the application design definition in order to generate application view instances for

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managing runtime component object interactions", emphases added), **which facilitates onsite as well as online development and which can be maintained with ease** (Turner, FIG. 46, col. 40, lines 53-61, "FIG. 46 is a schematic representation of a multicomputer computing system comprising a plurality of computers C1, C2, C3, etc, connected via a network N...The network N can be any form of network, whether a LAM, WAM, or a loosely connected network via the Internet or the like").

Claim Rejections - 35 USC § 103

22. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

23. Claims 2 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Turner et al. US 6,230,309 B1 (hereinafter Turner), in view of Goodwin et al. US 6,199,195 B1 (hereinafter Goodwin), (Applicant's admitted IDSs).

Per Claim 2:

Turner teaches

- **An unique versatile executor engine which can interpret and execute transaction structures and information views to build information system** (Turner, col. 5, lines 5-8, "The design engine being configured automatically to generate, in response to input user declarations, at least one application view field definition for detailing a field of the at least one application view definition") **wherein the transaction structure is a collection of,**
- **a) Data containers** (Turner, col. 5, lines 8-10, "The application definition can, in this manner, be implemented as a table in database")

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- **b) GUI Definitions** (Turner, col. 2, liens 41-43, "represent information from components to the end user of the application though the use of software routines and the provision of a graphical user interface"; also, col. 6, lines 4-10)
- **d) Process maps** (Turner, col. 13, lines 46-54, "Mapping (Operations to Application Views)—when an Operation is run, the Application Engine will use this information to move information between Attribute View Instance 88 and Application View Fields 84. this process is referred to as Mapping; ...")
- **e) Print formats** (Turner, FIG. 4, col. 3, lines 37-39, "the designer must ensure that required input information is available in the right format for an operation to run successfully")

Turner does not explicitly teach

- **c) Validation statements**

However, Goodwin teaches

- **c) Validation statements** (Goodwin, col. 11, lines 6-8, "A log file is created by the repository adaptor tool 312 and can be used to validate translation of a source model to a proper unified model").

It would have been obvious to one having ordinary skill in the computer art at the time of the invention was made to modify an unique versatile executor engine disclosed by Turner to include **Validation statements** using the teaching of Goodwin. The modification would be obvious because one of ordinary skill in the art would be motivated to automatically generated source code objects within extensible object frameworks and links to enterprise resources as suggested by Goodwin (Goodwin, col. 1, lines 10-12).

Per Claim 8:

Turner teaches:

- **An unique versatile executor engine which can interpret and execute transaction structures and information views to build information system** (Turner, col. 4, lines 41-51, "a design tool for assembling component objects to form an object-based computer system application, the design tool comprising: a declarative user input interface mechanism configure to be operable to provide an input structure for inputting user declaration specifying operative interactions between component object; and a design engine configured to be operable automatically to generate in response to input user declarations, an application design definition modeling an application infrastructure for managing component object interactions"; also, col. 5, lines 26-37, "the application engine is configured to be operable at runtime automatically to create application view instances from respective application view definitions form managing runtime component object interactions for the application. The runtime tool is thereby able to interpret the application design definition in order to generate application view instances for managing runtime component object interactions", emphases added)

Turner does not explicitly teach

- **wherein the said executor engine possesses a technology which is domain-neutral and hence can be used to build information systems for all domains.**

However, Goodwin teaches

- **wherein the said executor engine possesses a technology which is domain-neutral and hence can be used to build information systems for all domains** (Goodwin, col. 12, lines 45-48, "The goal of the unified model is to describe high level application business objects that are familiar to developers. The meta data are object that describe the application business objects in a domain-independent matter").

It would have been obvious to one having ordinary skill in the computer art at the time of the invention was made to modify an unique versatile executor engine disclosed by Turner to include **wherein the said**

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executor engine possesses a technology which is domain-neutral and hence can be used to build information systems for all domains using the teaching of Goodwin. The modification would be obvious because one of ordinary skill in the art would be motivated to automatically generated source code objects within extensible object frameworks and links to enterprise resources as suggested by Goodwin (Goodwin, col. 1, lines 10-12).

Conclusion

24. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anna Deng whose telephone number is 571-272-5989. The examiner can normally be reached on Monday to Friday 9:30 AM - 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Zhen can be reached at 571 -272-3708. The fax phone number for the organization where this application or proceeding is assigned is 703-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Anna Deng

02/27/08

/Ted T. Vo/

Primary Examiner, Art Unit 2191